How to use LP-Gas Safely at Construction Sites (Portable Type Cylinders/Tanks)

The requirements contained within this bulletin apply to temporary heating and other uses for portable LP-gas cylinders at construction sites not occupied by the public. If there is public occupancy, see your local fire official for special requirements.



SAFE CYLINDER STORAGE

- Store and use cylinders in an upright position with protective collars in place.
- Full or empty cylinders not in use should be stored at a specified location outside at ground level and protected against damage or tampering. Make sure cylinder valves are closed and protective caps or collars are in place. A good practice is to plug or cap all cylinder valves when not in use.



Cylinders must be protected from traffic

SAFE CYLINDER USE

- When used inside, maximum cylinder size should be 100 lbs. of LP-gas.
- Do not connect more than (3) 100 lb. cylinders of LP-gas to one manifold inside a building. If more than one manifold is required, separate these manifolds by at least 20 feet.
- Do not drop cylinders. Make sure the cylinder valve is closed and the protective collar is in place before moving any cylinder. A good practice is to plug or cap

- the cylinder valve before it is moved or when it is not in use.
- Check all cylinder connections for leaks with a suitable leak detector solution. (Do not use a soap solution as some soaps contain corrosive elements)
 DO NOT USE AN OPEN FLAME!
- To prevent premature closure of excess flow valves, open the cylinder valve slowly. After the pressure has been equalized, the valve should be opened to its full flow position without using excessive force. If an excess flow valve closes repeatedly in normal operations, contact your LP-gas supplier.



Open Valve Slowly

- Forcing the valve handwheel while opening and closing the valve may loosen the valve bonnet assembly, cause a hazardous leak, or damage the valve seat.
- Make sure cylinders are located or secured to prevent tipping. The effects of thawing ice or frozen ground should be anticipated.

SAFE TANK USE

• Tanks must be located outside of the building, a sufficient distance from property lines and the building in accordance with NFPA 58.

- Tanks must be placed on stable ground. The effects of freezing and thawing ground must be considered when locating the tank.
- Tanks must be located and sufficiently protected to prevent impact by construction vehicles. Temporary barriers are acceptable at construction sites.
- Piping associated with the tank must be rigid piping up to the building. Flexible piping may be used within the building. Piping must be protected from vehicle impact.
- Combustible material must not be stored within 10 feet of the tank.
- Check all tank connections for leaks with a suitable leak detector solution. (Do not use a soap solution as some soaps contain corrosive elements)
 DO NOT USE AN OPEN FLAME!
- To prevent premature closure of any provided excess flow valves, open the container valve slowly. After the pressure has been equalized, the valve should be opened to its full flow position without using excessive force. If an excess flow valve closes repeatedly in normal operations, contact your LP-gas supplier.



Tanks need to be placed on firm stable earth and be protected from construction vehicle traffic

USING HEATERS AND SALAMANDERS

- Do not use heaters or salamanders in areas where they may ignite combustible materials.
- Do not operate a heater or salamander in an unventilated area. Make sure there is sufficient air both for combustion and to prevent potential harmful levels of products of combustion from accumulating.
- Use only heaters or salamanders equipped with 100% safety shut off valves.



GENERAL SAFETY TIPS

- LP-gas containers are available for vapor or liquid withdrawal service. Vapor withdrawal containers are the prevalent type for heater or salamander service, but certain specialized applications such as some tar kettles, generators, vaporizers, high capacity heaters etc. require "liquid" withdrawal containers. CAUTION: The two types of containers are not interchangeable.
- To protect against leakage from an accidental break in the piping or hose, the container valves must be protected with an excess flow valve either internally or in the container's valve outlet connector. Check and verify the existence of an excess flow valve where required.

- Care must be taken in the proper selection of the gas regulators and their sizing based on the job requirements. The failure to protect gas regulators from adverse weather conditions as well as from building materials such as concrete, plaster, tar, etc. could affect their safe operation and can result in property damage or personal injury. Care must also be given to the protection and the proper positioning of the regulator vent for the same reasons.
- When the job or assignment is complete, and prior to shutting off the gas appliance, the gas should be turned off at the container valve so that the hose or piping is drained.
- All containers (as well as container valves, regulators, and caps) should be kept clean of all foreign materials such as concrete, plaster, tar, ice, etc.
- Repairs to equipment must be made only by a qualified LP-gas technician.
- In addition to the specific points covered above, all installations and equipment used should comply fully with NFPA No. 58, "Standard for the Storage and Handling of Liquefied Petroleum Gases," N.J.A.C. 5:18, as well as applicable OSHA rules.

If you have any questions please contact either your Municipal Building Department or:

The New Jersey Department of Community Affairs LP-Gas Safety Unit P.O. Box 816
Trenton, NJ 08625 – 0816

Phone: (609) 633 - 6835